AMHERST CAPITAL MARKET UPDATE | AUGUST 2017

U.S. Single Family Rental—Institutional Activity in 2016/2017

INTRODUCTION

Our November 2016 white paper, "U.S. Single Family Rental—An Emerging Institutional Asset Class*," examined single family rentals ("SFR") as an institution-owned, long-term commercial real estate ("CRE") asset. It broadly discussed the U.S. housing market and single family rentals, and examined drivers behind the growth of single family rentals, and in particular, institutional SFR. This paper updates that analysis, and takes a closer look at more recent (2016–2017) activity in the institutional SFR space.

Amherst CAPITAL MANAGEMENT
A BNY MELLON COMPANY

444 Madison Avenue
19th Floor
New York, NY 10022
www.amherstcapital.com

OUR FINDINGS SUPPORT THE CONCLUSIONS FROM THE NOVEMBER 2016 WHITE PAPER*:

- Cap rates in single family rentals remain attractive. Long-term trends favoring rental demand, especially for single family homes, remain strong.
- The case for institutional involvement in the SFR space gained more legitimacy—we witnessed another successful IPO from one of the largest institutional owner operators, a first-time GSE loan to a portfolio of SFR properties, and further tightening in SFR financing spreads versus multifamily/other CRE.
- Last but not least, the last few quarters have lengthened institutions' track records of managing single family homes as CRE, and we believe doing so successfully and efficiently—always a "plus" for a burgeoning asset class.

* To download, please visit: https://www.amherstcapital.com/market-insights

SECTION I
INSTITUTIONAL SFR ACTIVITY IN 2016/2017

As we discussed in the November 2016 white paper*, the share of institutions in the single family rental market has been rising since 2010. Last year was no exception. While some of the publicly traded SFR REITs report their holdings publicly, we used a slightly different approach to understand the activity of all the major institutional players (publicly traded or not). Specifically, we track properties in the County Record and Transaction Data from Corelogic that are owned by institutional pools of capital by identifying buyers allied with each of them. Based on this approach, we found upwards of 200,000 homes owned by institutional capital at the end of 2016 (Exhibit 1). Since these are derived from County Record data based on buyer name tagging, they may not cover all purchases by the listed Institutional buyers and are thus an estimate. In fact, our estimate of 200,000 homes is likely a lower bound for institutional-owned SFR. But regardless of the exact number, the key is that institutions continue to capture a bigger part of the SFR market.

Given our specific approach to tracking properties, we can explore more than just the actual number of properties owned, and/or managed, by institutions. For example, transaction prices are available on about 85% of institutional holdings, and they suggest that their purchases averaged around $140 thousand ("K") per home. Based on publicly available data on refurbishing costs from some of the institutions, we estimate that the total acquisition and stabilization basis in these homes averages about $165K. That brings total institutional investment in SFR homes to about $33 billion ("B") dollars. This excludes the investments in technology, operations and other resources that institutions have made in the last few years as they ramped up their portfolios.

From our standpoint, there are two key takeaways from this:

1. $33B in holdings is a big leap for an asset class that had little institutional involvement until 6–7 years ago.
2. We risk being repetitive—but $33B is still only a teensy drop in the bucket compared to the total value of single family homes which we estimate at about $26 trillion ("T").[1] Even among the 15 million ("M") or so single family rentals (i.e., excluding owner-occupied, single family homes), institutions own less than 2%.

1 Source: Estimated by Amherst Capital based on Federal Reserve Z.1 release as of June 9 2016; and MSCI, SIFMA data; and data from the National Multifamily Housing Council.

* To download, please visit: https://www.amherstcapital.com/market-insights

EXHIBIT 1 ***SFR Institutional Holdings (estimated from County Record and Transaction Data)***

Institution*	Total Count	Units with Sale Amount in Transaction Data	% with Transaction Prices	Est. Purchase Price ($M)	Est. All in Cost ($M)	Average Cost ($K)	Average Landed Cost ($K)
Blackstone (Invitation Homes)	47,317	44,539	94%	8,212	8,947	174	189
American Homes 4 Rent	46,663	39,978	86%	6,686	8,263	143	177
Colony Starwood Homes	30,747	25,832	84%	4,664	5,682	152	185
Progress Residential	19,269	17,129	89%	3,170	3,450	164	179
Silver Bay Realty Trust	9,235	7,825	85%	1,007	1,213	109	131
Main Street Renewal	8,554	6,872	80%	894	1,203	105	141
Tricon American Homes	6,858	5,738	84%	717	824	105	120
Golden Tree Insite Partners (GTIS)	6,371	3,518	55%	498	566	78	89
Cerberus Capital Management	4,703	2,199	47%	652	780	139	166
Altisource Residential	4,158	3,863	93%	284	369	68	89
Havenbrook Homes	4,027	3,884	96%	380	453	94	113
Haven Homes	2,865	2,197	77%	327	373	114	130
Vinebrook Homes	2,056	1,112	54%	99	139	48	68
Gorelick Brothers Capital	1,974	1,677	85%	166	192	84	97
Camillo Properties	1,359	19	1%	51	190	38	140
Lafayette Real Estate	1,258	982	78%	98	112	78	89
Connorex-Lucinda	1,121	1,091	97%	174	200	155	178
Transcendent Investment Management	609	580	95%	58	66	95	109
Broadtree Home Rentals	561	497	89%	55	63	97	112
Reven Housing Reit	499	215	43%	58	79	117	159
Prager Property Management	277	117	42%	45	59	163	215
Pintar Investment Company	228	194	85%	46	55	202	241
Total	**200,709**	**170,058**	**85%**	**28,340**	**33,279**	**141**	**166**

Source: Amherst InsightLabs estimates based on Corelogic County Record and Transaction Data as of Q4 2016

Note: Since these are derived from County Record data based on buyer name tagging, they may not cover all the purchases by the listed Institutional Buyers, and are thus an estimate. Some intercompany transfers may not be included in our analysis if we were unable to tag both the buyer and the seller to a specific institution.

Note: In Aug 2017 Invitation Homes and Colony Starwood homes announced an intention to merge. This merged entity is not reflected in the Exhibits in this piece and Invitation homes and Colony Starwood are treated as separate entities. Tricon and Silver Bay are also shown as separate entities since these numbers reflect positions at the end of 2016

* Includes homes held by various allied institutional buyers

NEWER ENTRANTS TAKING LARGER MARKET SHARES OF PURCHASES IN RECENT YEARS

In terms of the mix of institutional buyers, our data suggests that newer entrants increased their purchases in 2015 and 2016. Exhibit 2 shows the number of homes purchased by the major institutions that we tracked for each calendar year going back to 2011. The cells highlighted in green indicate that the institution saw a year-over-year increase in purchases in that specific year; those in red show year-over-year declines. For instance, for Blackstone (Invitation Homes), we see that in 2016 they purchased 1,191 homes, which was less than their prior year's purchase of 3,742 homes. In contrast, Altisource Residential increased its purchases from 1,022 homes in 2015 to 3,012 in 2016.

In general, we find that the biggest institutional players in SFR space (such as Blackstone, American Homes 4 Rent ["AH4R"] and Colony/Starwood) slowed their purchasing in 2015–2016. At the same time, mid-sized players (such as Progress, Main Street Renewal, Altisource and Connorex) were more active in 2015–2016 versus prior years.

EXHIBIT 2 ***Institutional SFR—# of homes by purchase year***

Organization	SFR Holdings (# homes) by purchase year					
	2011	2012	2013	2014	2015	2016
BLACKSTONE	6	11,222	24,180	6,943	3,742	1,191
AMERICAN HOMES 4 RENT	356	9,619	17,974	12,158	5,012	1,364
COLONY STARWOOD	256	5,582	12,919	8,511	2,190	1,052
PROGRESS RESIDENTIAL	2	497	5,278	4,756	4,763	3,938
MAIN STREET RENEWAL		237	1,339	2,390	2,282	2,875
SILVER BAY	438	3,309	2,222	1,205	1,138	12
TRICON AMERICAN HOMES	57	1,228	1,945	1,619	1,035	924
CERBERUS CAPITAL		834	2,347	439	2,387	331
ALTISOURCE RESIDENTIAL		1	51	446	1,022	3,112
CONNOREX-LUCINDA		53	442	1,027	1,078	1,524
HAVENBROOK HOMES	2	47	741	2,650	498	85
GOLDEN TREE	0	57	1,294	1,187	258	57
VINEBROOK HOMES	34	130	131	866	737	128
GORELICK BROTHERS	2		398	440	814	321
LAFAYETTE REAL ESTATE	14	365	69	424	369	18
CAMILLO PROPERTIES	42	110	338	379	169	141
HAVEN HOMES	32	282	724	20	1	5
TRANSCENDENT	18	203	150	230	11	
BROADTREE	3	49	139	211	88	65
REVEN HOUSING REIT		5	156	203	133	
PRAGER	1		13	182	76	4
PINTAR		11	13	11	66	125

Buying More Homes   Buying Less Homes

Source: Amherst InsightLabs estimates based on Corelogic County Record and Transaction Data as of Q4 2016

Another way of looking at the yearly purchase data is by market share for year of purchase. As Exhibit 3 shows, the top three institutions by total owned SFR homes (Blackstone, AH4R and Colony/Starwood) each had only a 6–8% market share of new purchases in 2016. Combined, these top three public owners only accounted for about one in every five homes purchased by institutions in 2016. That contrasts with prior years, such as 2012–2014, when the top three buyers had a much higher combined market share (50–75%). In 2016, the top three buyers were Progress Residential ("Progress") (23% market share), Altisource (18% share) and Main Street Renewal ("MSR") (17% share).

EXHIBIT 3 ***Institutional SFR market share (by year)***

Organization	SFR Holdings (% of institutional SFR) by purchase year					
	2011	2012	2013	2014	2015	2016
BLACKSTONE	0%	33%	33%	15%	13%	7%
AMERICAN HOMES 4 RENT	28%	28%	25%	26%	18%	8%
COLONY STARWOOD	20%	16%	18%	18%	8%	6%
PROGRESS RESIDENTIAL	0%	1%	7%	10%	17%	23%
MAIN STREET RENEWAL	0%	1%	2%	5%	8%	17%
SILVER BAY	35%	10%	3%	3%	4%	0%
TRICON AMERICAN HOMES	5%	4%	3%	3%	4%	5%
CERBERUS CAPITAL	0%	2%	3%	1%	9%	2%
ALTISOURCE RESIDENTIAL	0%	0%	0%	1%	4%	18%
CONNOREX-LUCINDA	0%	0%	1%	2%	4%	9%
HAVENBROOK HOMES	0%	0%	1%	6%	2%	0%
GOLDEN TREE	0%	0%	2%	3%	1%	0%
VINEBROOK HOMES	3%	0%	0%	2%	3%	1%
GORELICK BROTHERS	0%	0%	1%	1%	3%	2%
LAFAYETTE REAL ESTATE	1%	1%	0%	1%	1%	0%
CAMILLO PROPERTIES	3%	0%	0%	1%	1%	1%
HAVEN HOMES	3%	1%	1%	0%	0%	0%
TRANSCENDENT	1%	1%	0%	0%	0%	0%
BROADTREE	0%	0%	0%	0%	0%	0%
REVEN HOUSING REIT	0%	0%	0%	0%	0%	0%
PRAGER	0%	0%	0%	0%	0%	0%
PINTAR	0%	0%	0%	0%	0%	1%

Source: Amherst InsightLabs estimates based on Corelogic County Record and Transaction Data as of Q4 2016

Note: The shares add up to 100% for each year individually

CONSOLIDATION IN SFR SPACE CONTINUES AS A WAY OF BUILDING SCALE QUICKLY

Even though the largest institutional holders of SFR have slowed purchase activity, there has definitely been some consolidation in this space. Consolidation (such as a bulk transaction, or a merger) can enable institutions to reach economies of scale more quickly and take advantage of specific opportunities. We next look at three recent examples of such: Invitation Homes proposed merger with Colony Starwood, Tricon's acquisition of Silver Bay Homes, and Colony Starwood's acquisition of 3,100+ homes from GI Partners.

1. INVITATION HOMES PROPOSED MERGER WITH COLONY STARWOOD

In a deal announced in August 2017, Invitation Homes and Starwood Waypoint Homes proposed a merger. The merger would combine the two biggest U.S. Institutional SFR entities into a single entity owning about 82,000 SFR homes with about 4,800 homes per city/market on average. In the merger, each share of Starwood Waypoint will be converted to 1.614 shares of Invitation Homes. Overall, the merged entity would be owned 59.1% by former Invitation Homes shareholders and 40.9% by former Starwood shareholders. The transaction is expected to close by the end of 2017, pending shareholder approval and other customary conditions. The portfolios of the two entities are similar and are both in the top-tier segment as we show below in Exhibits 4 & 5. The pro-forma real estate value of the combined entities is likely to be about $20B making it one of the top 20 REITs by enterprise value and opening up the possibility of inclusion in the S&P 500 Index. The combined REIT will also be one of the largest residential REITs across multifamily and single family by the number of housing units owned. The companies expect $45–50M in annual cost synergies as a result of the merger according to presentation materials released along with the merger announcement. The cost synergies include $15–18 Min property-related expenses and $30–33M in corporate overhead savings. If this cost saving is realized on the combined NOI, we expect it to boost effective cap rates by about 20–25bps from about 5.1% to 5.3% for the combined entity, based on our estimates.

2. TRICON ACQUISITION OF SILVER BAY

In a deal announced in Feb 2017[2] and closed in May 2017,[3] Tricon Capital Corp (parent of Tricon American Homes) bought Silver Bay Realty Trust for nearly $1.4B in an all-cash transaction ($820M equity-value + $600M debt). The price was a 24% premium to the trailing 90-day price of Silver Bay on announcement day. This deal elevated the merged entity to the 4th largest publicly owned SFR operator, with more than 16,800 homes on the combined platform. Note however that the combined entity, Canadian listed Tricon Capital group, is not a pure-play SFR REIT but has other businesses such as homebuilding and housing communities. At $21.50/share, the implied acquisition cap rate was approximately 5.2% based on 2016 net-operating income ("NOI"), and 5.3% based on 2017 first-quarter NOI. We discuss the cap rates implied by this transaction and publicly traded share prices later in the article.

3. COLONY STARWOOD CAPITAL ACQUIRED 3,100+ HOMES FROM GI PARTNERS

In June 2017, Colony Starwood announced an agreement to purchase 3,106 SFR homes from GI Partners for approximately $815M.[4] The transaction is expected to close in third-quarter 2017. Of these homes, Colony Starwood expects to retain about 2,720 homes for the long-term (after it sells about 386 homes).[5] All homes in the acquired portfolio are located within markets where Colony Starwood already has a presence, and would increase their market density in certain areas. The portfolio is somewhat concentrated in California (more than 60% of rental revenue is from California homes). Due to that high California concentration, average rent on the acquired portfolio was on the higher side, at about $1,700/month, which exceeds Colony's pre-acquisition average of $1,584/month.[6] This portfolio was already managed by the Colony Starwood entity through its Waypoint operations and may provide additional opportunity for efficiencies.

2 Press release issued by Tricon, March 2017. http://www.marketwired.com/press-release/tricon-capital-group-to-acquire-silver-bay-realty-trust-corp-tsx-tcn-2198921.htm

3 Press release issued by Tricon, May 2017. http://www.triconcapital.com/wp-content/uploads/2017/05/5-9-2017.pdf

4 Press release issued by GI Partners, June 2017. http://www.prnewswire.com/news-releases/gi-partners-sells-its-waypoint-portfolio-to-colony-starwood-300469053.html

5 Company 8-K filings related to the sale dated June 5 2017

6 Company 8-K filings related to the sale dated June 5 2017

INSTITUTIONAL BUYERS COALESCE AROUND THREE DISTINCT STRATEGIES

The largest institutional buyers of SFR have been coalescing around three broad strategies. We discussed this in our November white paper ("U.S. Single Family Rental—An Emerging Institutional Asset Class"). However, that distinction became even more defined in their 2016 purchases.

Exhibits 4 and 5 show the strategic distinctions pictorially. Exhibit 4 plots the median size of homes purchased in 2016, with square footage on the horizontal axis and median transaction price as recorded in the transaction dataset on the vertical axis. To provide some context, according to the Census Bureau (American Housing Survey 2015[7]), median home size across all single family detached homes is 1,800 square feet, while that for single family rentals (including those not owned institutionally) is 1,400 square feet. The survey also shows that sizes are somewhat higher for newer-construction homes. For instance, on single family rentals, the median size for homes built post-2000 is about 1,800 square feet, while for those built in the 1990s it's 1,685 square feet.[8]

Similarly, Exhibit 5 shows the median year built for homes along the horizontal axis, while the vertical axis plots ZIP code-level median household income averaged across 2016 purchases. To provide some context, median year built for all U.S. single family homes is 1974. The typical rental home is slightly older with a median year of construction of 1966, as per the 2015 American Housing Survey.[9] Median household income in the U.S. is about $55,775 (based on the American Community Survey from the Census Bureau[10]).

STRATEGY 1—PUBLIC REITs FOCUS ON HIGHER END SFR

STRATEGY 2—LOWER END HOMES SIMILAR TO NON-INSTITUTIONAL SFR

STRATEGY 3—VALUE BUYERS IN THE MIDDLE

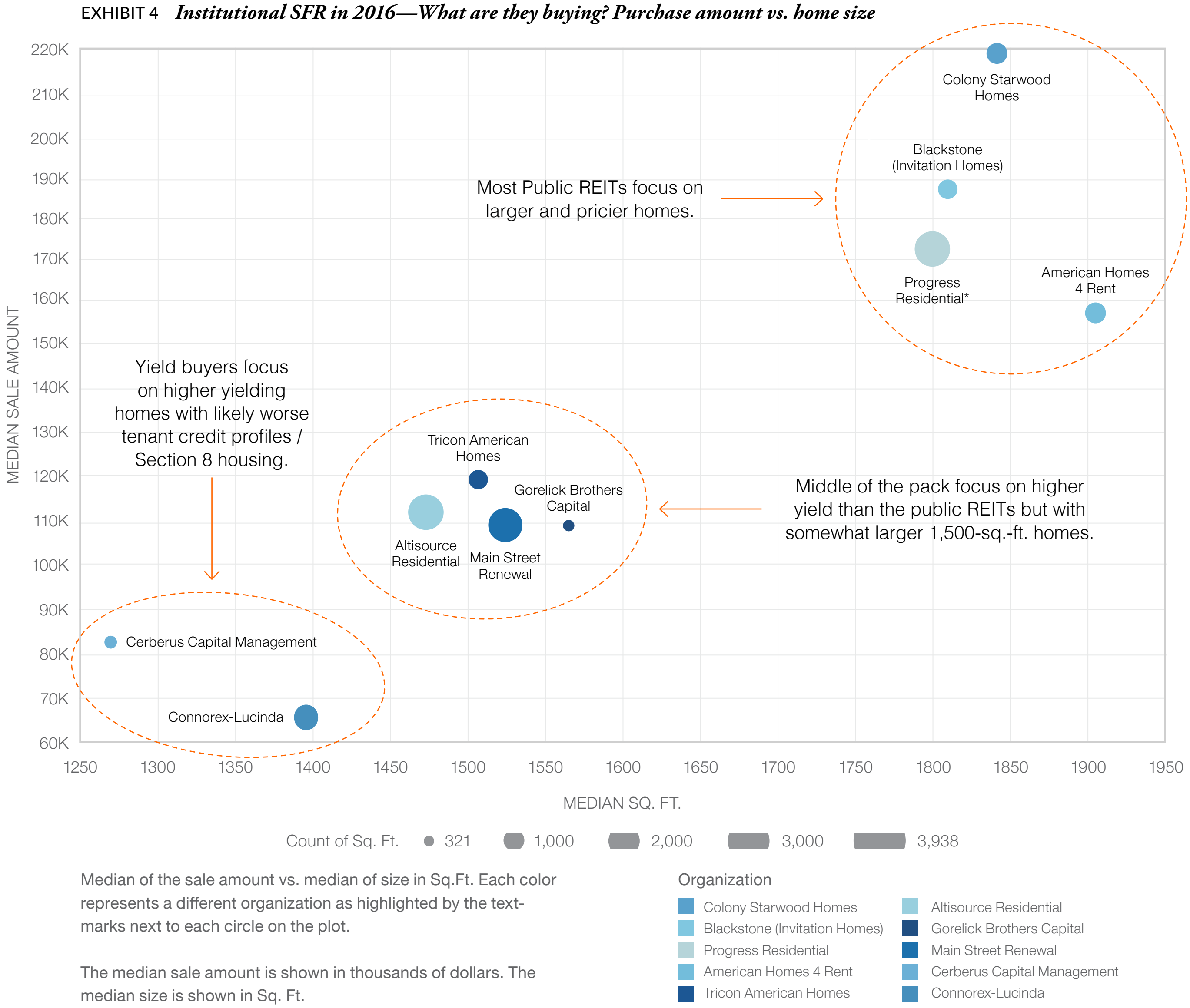
7 https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html#?s_areas=a00000&s_year=n2015&s_tableName=Table2&s_byGroup1=a2&s_byGroup2=a4&s_filterGroup1=t3&s_filterGroup2=g1

8 https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html#?s_areas=a00000&s_year=n2015&s_tableName=Table2&s_byGroup1=a2&s_byGroup2=a3&s_filterGroup1=t3&s_filterGroup2=g1

9 Source: https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html#?s_areas=a00000&s_year=n2015&s_tableName=Table1&s_byGroup1=a2&s_byGroup2=a3&s_filterGroup1=t3&s_filterGroup2=g1

10 Source: https://www.census.gov/library/visualizations/2016/comm/cb16-158_median_hh_income_map.html

EXHIBIT 4 ***Institutional SFR in 2016—What are they buying? Purchase amount vs. home size***



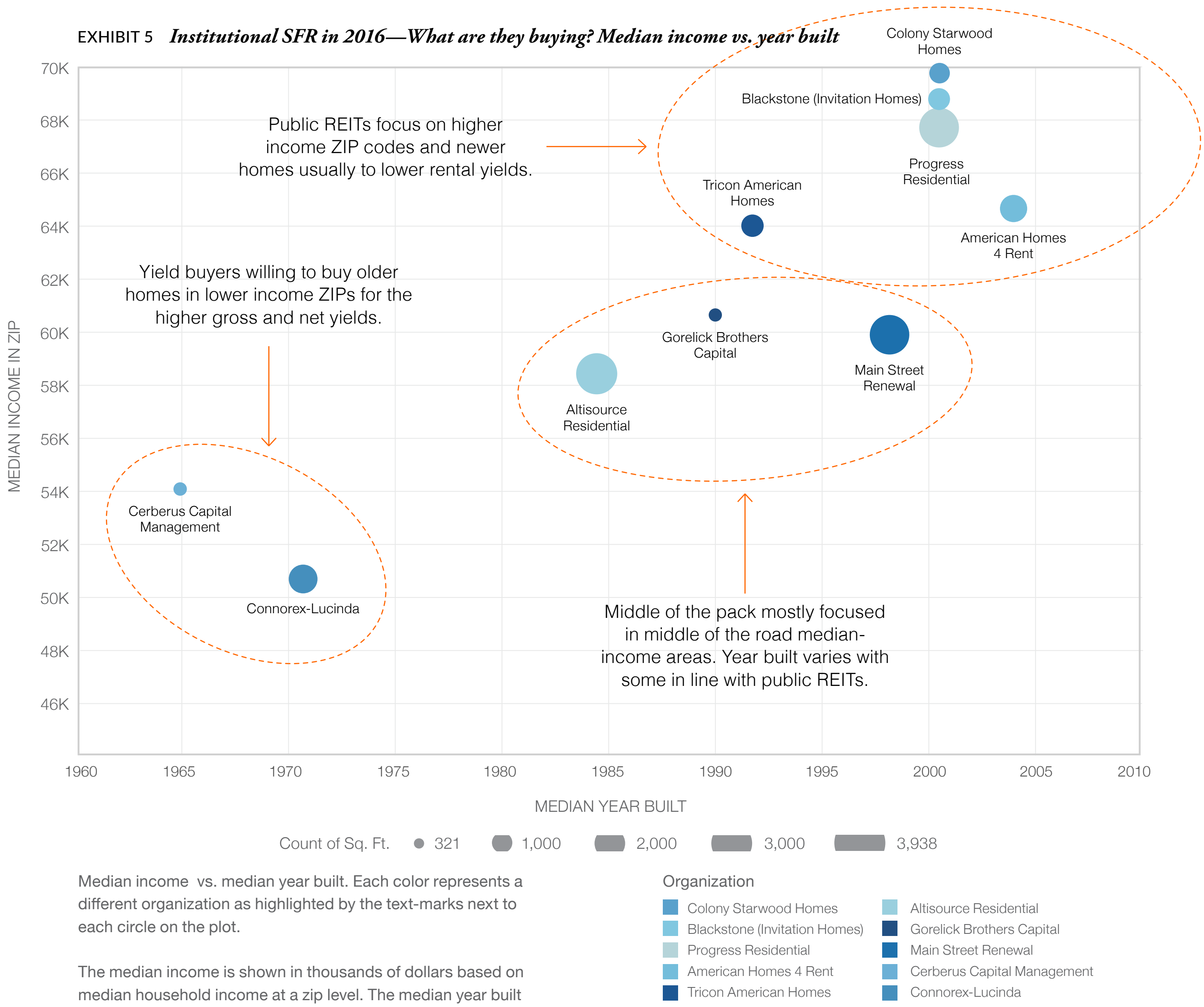
Median of the sale amount vs. median of size in Sq.Ft. Each color represents a different organization as highlighted by the text-marks next to each circle on the plot.

The median sale amount is shown in thousands of dollars. The median size is shown in Sq. Ft.

Source: Amherst InsightLabs estimates based on Corelogic County Record and Transaction Data as of Q4 2016

Note: The size of the bubble represents the share in 2016 purchases by institutions. *Progress is not a publicly traded REIT but has a strategy similar to them

EXHIBIT 5 ***Institutional SFR in 2016—What are they buying? Median income vs. year built***



Median income vs. median year built. Each color represents a different organization as highlighted by the text-marks next to each circle on the plot.

The median income is shown in thousands of dollars based on median household income at a zip level. The median year built represents the median across 2016 purchases for each entity.

Source: Amherst InsightLabs estimates based on Corelogic County Record and Transaction Data as of Q4 2016

Note: The size of the bubble represents the share in 2016 purchases by institutions. *Progress is not a publicly traded REIT but has a strategy similar to them

STRATEGY 1—PUBLIC REITs FOCUS ON HIGHER END SFR

Most public REIT buyers choose higher priced, larger, and newer homes in areas with generally higher median household incomes $65–70K per year at lower gross/net cap rates. Invitation Homes, Colony, AH4R and Progress (which is not a publicly traded REIT like the rest, but follows a similar strategy) fall under this category.

For example, their 2016 purchases sit at the top right corner of Exhibit 4. The median size of homes bought by public REITs was about 1,800–2,000 square feet. That's larger than the median SFR home, and more in line with houses built post-2000. Not surprisingly, Exhibit 5 shows that publicly traded REITs are again mostly in the top right corner, with newer-construction homes (median year built approximately 1990–2000) in areas with relatively higher median household incomes (about $65–70K, well above the country's median of about $56K).

The focus for these public REITs has usually been larger, newer homes, and in higher growth metros (though not exclusively so). Such homes generally trade at a lower cap rate but arguably with the potential of higher rent growth and home price appreciation. Tenants renting at these price points are likely to have stronger financial profiles and are likely future home buyers as they build/rebuild their credit.

STRATEGY 2—LOWER END HOMES SIMILAR TO NON-INSTITUTIONAL SFR

This is a yield-focused strategy targeting sub-$100K smaller homes in areas with $50–55K annual median household incomes. Institutions with this strategy are comfortable in buying older homes, which usually trade relatively cheaper since they are in worse upkeep, but that's offset by somewhat higher gross yields/cap rates. Cerberus and Connorex fall into this category.

As Exhibit 4 shows, these buyers place at the bottom left area, given their focus on sub-$100K homes. Their median size of 2016 purchases was closer to 1,300–1,400 square feet, which is at or below the median for all single family rental homes and much below the median for newer homes. Exhibit 5 confirms that their target is generally older homes (median year build 1960s–1970s) and also areas with below-average median household incomes (about $50–55K).

At this price/size point, both the price and rent on a per-square-foot basis are on the higher side. These also come with higher potential credit costs, given the generally weaker tenant profile. In addition, lack of access to credit in this tenant segment likely means that the scope for cap rate compression remains limited in the face of rising rates. At the same time, the investors are getting compensated by a higher net cap rate (higher running income).

STRATEGY 3—VALUE BUYERS IN THE MIDDLE

This strategy focuses on properties that are somewhere between the above two categories. Such homes are more moderately priced and sized, in areas with about $55–60K median household incomes, at somewhat higher cap rates than the public REITs but lower than the yield buyers. As we mentioned in our white paper, we believe this to be the "sweet spot" of the SFR market; cap rates are more attractive than the publicly traded REIT strategy, and there is decent potential for price appreciation. Purchases by institutions such as Altisource, Main Street Renewal, and to some extent Tricon, fall into this area.

As Exhibit 4 depicts, their median buy price is in the $110–120K range, with approximately 1,500 square feet of space. This size is about the same as the median for all single family rentals, but smaller than the median for all single family homes, and much smaller than newly constructed SF homes. Similarly, Exhibit 5 shows that buyers in this strategy go for homes with a median build year of 1980–1990. The one exception is MSR, with newer homes and a median year build of late 1990s. Overall, buyers in this strategy focus on ZIP codes with median income of $55–60K, which is average to slightly-above-average for the nation as a whole.

At this price/size point, cap rates are somewhat higher than on properties bought by the public REITs. That's partly due to the geographical mix; these buyers tend to focus in the middle of the country, which generally has higher cap rates than the coastal areas (the latter favored by many, if not all, of the public REITs). To the extent lower price points are more a reflection of geography, we believe the price points and home sizes usually still point to a relatively stronger-than-average tenant profile. Similar to the higher-end homes, it can be argued that if and when mortgage credit availability for their tenants improves, there will likely be increased end-buyer demand for these homes. This stronger demand could provide an additional avenue for cap rate compression.

MARKET LARGE ENOUGH FOR PLAYERS TO PURSUE MULTIPLE STRATEGIES

While the institutional SFR space has now been in existence for 5–7 years, it is still far behind other CRE sectors like multifamily, where institutional ownership exceeds 50%.[11] At its 2%[12] share of all single family rentals, the SFR market overall both remains large, yet still has untapped space for institutions to grow into. It is not inconceivable for some larger players to pursue or target more than one type of homes and/or focus on different segments in different markets.

While institutions are currently pursuing the three broad strategies outlined above, there is enough room for even finer distinctions and further refinement. For instance, within each of the major Metropolitan Statistical Areas ("MSAs") where these institutions are active, we can see clear distinctions between strategy and pricing at a suburb/ZIP code level and in some cases even down to street level. As institutional buyer groups become more sophisticated and have access to more data on single family rental tenant behavior, we expect this to lead to more refined strategies that may be harder to chalk out like we did on Exhibits 4 and 5.

11 Source: Estimated by Amherst Capital based data from the National Multi-family Housing Council extracted in May 2017.

12 Source: Estimated by Amherst Capital based on County Record Data and Census Bureau Data as of Q4 2016

GEOGRAPHICAL SHIFTS—ATLANTA REMAINS POPULAR 2016 TARGET; CA/AZ/NV FALL OUT OF FAVOR

We also see interesting time series trends across geographies. Exhibit 6 shows the shifts in institutional buying from 2016 over prior years. The top right of the exhibit maps institutional SFR holdings by metro area of purchases made during 2010–2015, with the size of the dot depicting the institutionally-owned share of SFR homes in that metro area. The bottom right portion of Exhibit 6 shows the same metrics, but only for institutional purchases made in 2016. The left side of the exhibit shows actual data for the top 10 metro areas, for % share and count of homes purchased in 2010–2015 (top left) and 2016 (bottom left) that are still owned institutionally. Finally, the color-coded arrows in the bottom left indicate metro areas where share has increased, fallen or stayed roughly the same in 2016 from prior years. Green indicates that the share of a given metro area in 2016 purchases is higher than its share in 2010–2015; red indicates that it has dropped.

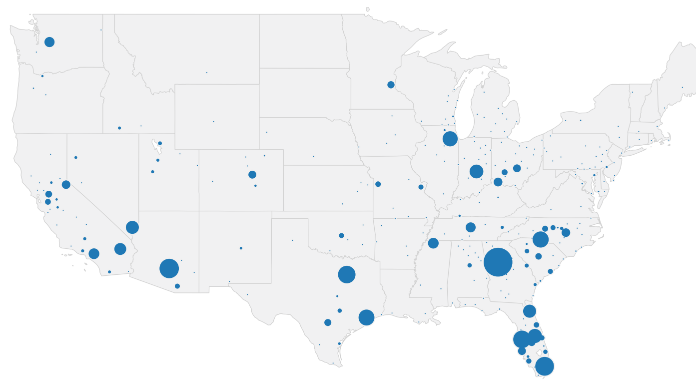
Across time, Atlanta has remained a favorite among institutional buyers. The share of Atlanta in all institutional purchases in 2016 was about 15.5%, similar to its 2010–2015 share. Areas in the Midwest and the South gained share in 2016 vs. the prior years. That included cities such as Dallas, Charlotte, Indianapolis, Houston, Nashville, Memphis and Kansas City.

Areas that drifted lower in share were primarily in the West, such as Arizona, California and Nevada, with Florida showing smaller declines. Phoenix was the #2 area between 2010–2015, but fell out of the top 10 in 2016. The West had historically seen interest from early entrants in this space (like Blackstone's Invitation Homes, and Colony/Starwood/Waypoint), but as those institutions' share of total purchases fell, the West's proportion within all institutional purchases also dropped. Areas such as Miami/Tampa also fell somewhat in percentage share, but remain in the top 10 for institutional activity, with strong interest from buyers such as Progress.

EXHIBIT 6 ***Geographical shifts in buying behavior***

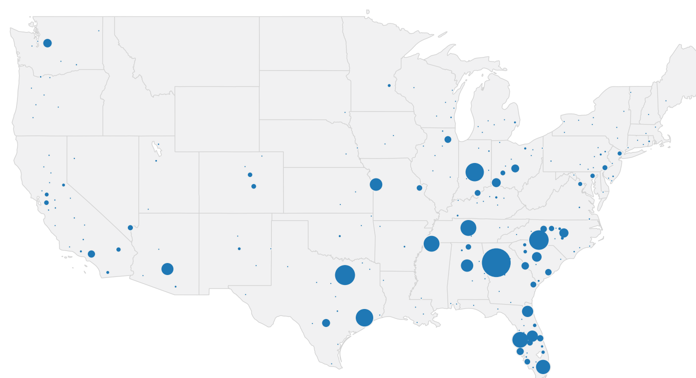
CBSA	2010–2015	# Homes
Atlanta–Sandy Springs–Roswell, GA	15.1%	27,514
Phoenix–Mesa–Scottsdale, AZ	6.8%	12,472
Miami–Fort Lauderdale–West Palm Beach, FL	6.4%	11,668
Tampa–St. Petersburg–Clearwater, FL	5.6%	10,183
Dallas–Fort Worth–Arlington, TX	5.5%	10,130
Charlotte–Concord–Gastonia, NC–SC	4.7%	8,598
Houston–The Woodlands–Sugar Land, TX	4.6%	8,371
Chicago–Naperville–Elgin, IL–IN–WI	4.1%	7,550
Orlando–Kissimmee–Sanford, FL	3.6%	6,569
Indianapolis–Carmel–Anderson, IN	3.4%	6,253
Rest	40.2%	73,332
Total	**100.0%**	**182,640**

2010–2015 HOMES BOUGHT BY INSTITUTIONS



CBSA	2016	# Homes
Atlanta–Sandy Springs–Roswell, GA	↔ 15.5%	2,682
Dallas–Fort Worth–Arlington, TX	↑ 7.5%	1,293
Charlotte–Concord–Gastonia, NC–SC	↑ 7.1%	1,226
Indianapolis–Carmel–Anderson, IN	↑ 6.3%	1,086
Houston–The Woodlands–Sugar Land, TX	↑ 5.7%	985
Nashville–Davidson–Murfreesboro–Franklin, TN	↑ 4.7%	811
Memphis, TN–MS–AR	↑ 4.7%	807
Tampa–St. Petersburg–Clearwater, FL	↓ 4.6%	792
Miami–Fort Lauderdale–West Palm Beach, FL	↓ 3.8%	650
Kansas City, MO–KS	↑ 2.9%	504
Rest	37.3%	6,436
Total	**100.0%**	**17,272**

2016 HOMES BOUGHT BY INSTITUTIONS



Source: Amherst InsightLabs estimates based on Corelogic County Record and Transaction Data as of Q4 2016

Note: The left half of the exhibit shows top ten areas with institutional purchases in 2010–2015 (top left) and 2016 (bottom left). The right side shows maps with each of the dot showing marketshare in the period. The top right shows holdings bought in 2010–2015 and the bottom right shows holdings bought in 2016

INSTITUTIONS STILL A SMALL PROPORTION OF ALL HOME SALES, EVEN IN CONCENTRATED AREAS LIKE ATLANTA

Institutional purchases have been somewhat concentrated in a few geographies. As the third column in Exhibit 7 shows, the top 10 metro areas account for about 63% of all 2016 purchases by institutions. However, even in such higher ranking metro areas, institutional purchases only represented 1–3% of total annual homes sales. This is not to say that the share is uniformly small across subdivisions; some could have a much higher concentration. In fact, despite a small share in sales, market shares can really rise if institutions are a net buyer for long periods in a specific locality. That said, given the generally small share in metro area sales, any broad-based narrative suggesting that institutions are driving up prices and crowding out retail buyers seems rather stretched, in our opinion.

INSTITUTIONS HAVE VARYING GEOGRAPHIC FOCUS

The rest of Exhibit 7 (to the right of column 4) breaks down 2016 institutional purchases across buyers. Each row shows the share of each institution within all purchases by institutions. For instance, looking across the first row for Atlanta, we see that Progress had 22% share among all institutional purchases in Atlanta in 2016, Altisource had a 16% share, etc. Based on this data, two patterns emerge.

1. Some areas such as Atlanta, Charlotte, Dallas and Indianapolis were popular in 2016 among multiple institutions. MSR (23%), Progress (22%), Altisource (16%), American Homes 4 Rent (12%) and Tricon (10%) all purchased homes in Atlanta in 2016. Similarly in Dallas, Charlotte and Indianapolis, we find that no single institution exceeded a 30% share among all institutional buys in that metro area.
2. Some areas were dominated by 1–2 institutions. We highlight areas where a single institution exceeded 50% share within institutional buyers by a red dashed oval in Exhibit 7. For example, Progress dominated institutional purchases in Nashville (56% of all institutional buys in 2016), Miami (68%) and Orlando (72%) in 2016. Similarly, Altisource was dominant in Houston (51%), Chicago (89%) and Philadelphia (97%), while MSR led in Memphis (59%), San Antonio (51%), Winston-Salem (58%), Louisville (94%) and St. Louis (85%). This split across geographies is in line with the three broad strategies we discussed above. Buyers like MSR are dominant in areas with generally higher cap rate/lower absolute home prices than buyers like Progress who appear to be more focused in lower-cap-rate/higher-priced metros.

EXHIBIT 7 ***2016 Market shares—leading institutional buyers, across cities***

CBSA Major City	2016 Institutional Purchases in CBSA in	% Cumulative Institutional Purchases	Institutional purchases as a percentage of Total 2016 Sales in CBSA	% Market share within Institutional Purchases in each CBSA								
				Progress	Altisource	MSR	Connorex	American H4R	Invitation	Colony Starwood	Tricon	Cerberus
Atlanta, GA	2682	15.5%	1.9%	22%	16%	23%		12%	9%	1%	10%	
Dallas, TX	1293	23.0%	0.7%	16%	24%	28%		2%		7%	14%	
Charlotte, NC	1226	30.1%	2.0%	30%	4%	5%	2%	17%	6%	22%	10%	
Indianapolis, IN	1086	36.4%	1.9%	26%	6%	30%	14%	0%		0%	13%	6%
Houston, TX	985	42.1%	0.8%	29%	51%	3%		0%		5%	3%	
Nashville, TN	811	46.8%	1.5%	56%	2%	10%	0%	12%		13%		
Memphis, TN	807	51.5%	3.1%	27%	3%	59%						12%
Tampa, FL	792	56.1%	0.9%	46%	14%	3%		13%	7%	4%	7%	
Miami, FL	650	59.8%	0.6%	68%	15%			0%	13%	2%	0%	
Kansas City, MO	504	62.7%	0.7%		7%	38%	21%					33%
Birmingham, AL	489	65.6%	1.8%		4%	25%	70%					
Phoenix, AZ	462	68.2%	0.3%	1%	4%			0%	64%	30%	0%	
Orlando, FL	405	70.6%	0.7%	72%	15%	1%		0%	10%	1%		0%
Jacksonville, FL	403	72.9%	1.2%	37%	21%	12%		23%	1%			
Columbia, SC	296	74.6%	2.0%		4%		67%				30%	
Raleigh, NC	269	76.2%	0.7%	47%	8%	3%	3%	19%	5%	16%		
Cincinnati, OH	255	77.7%	0.6%		3%		60%					
Seattle, WA	230	79.0%	0.3%		11%			15%	73%			
San Antonio, TX	203	80.2%	0.4%		40%	51%		1%			3%	
Columbus, OH	198	81.3%	0.5%		3%		27%	50%				
Augusta, GA	179	82.4%	1.3%				96%	4%				
Los Angeles, CA	165	83.3%	0.2%	1%	10%				56%	2%		
North Port, FL	162	84.3%	0.7%	62%	20%	3%		1%	12%	1%	1%	
Chicago, IL	146	85.1%	0.1%		89%				2%	1%		8%
Winston-Salem, NC	135	85.9%	1.1%		5%	58%	18%	19%	1%			
Charleston, SC	131	86.6%	1.0%		5%		27%	67%			1%	
Palm Bay, FL	125	87.4%	0.7%		19%	42%		2%	38%			
Louisville/ Jefferson County, KY	108	88.0%	0.4%		6%	94%						
Savannah, GA	107	88.6%	1.3%		4%			94%				
Lakeland, FL	102	89.2%	0.6%	31%	44%	15%		1%	5%			
Cape Coral, FL	100	89.8%	0.4%	15%	64%	15%		1%		5%		
St. Louis, MO	96	90.3%	0.1%		14%	85%				1%		
Huntsville, AL	94	90.9%	0.7%				100%					
Greensboro, NC	88	91.4%	0.7%		17%	43%	17%	22%	1%			
Las Vegas, NV	82	91.9%	0.1%	22%	9%			18%	17%	12%	1%	
Philadelphia, PA	77	92.3%	0.1%		97%							
Dayton, OH	72	92.7%	0.4%				99%	1%				
Colorado Springs, CO	69	93.1%	0.3%		1%					99%		
San Francisco, CA	66	93.5%	0.1%		9%				2%	89%		
Denver, CO	62	93.9%	0.1%		6%					94%		
Baltimore, MD	60	94.2%	0.1%		75%							
Riverside, CA	56	94.5%	0.1%		21%				5%	14%	2%	
New York, NY	52	94.8%	0.0%		98%	2%						
Washington, DC	52	95.1%	0.1%		98%			2%				

Source: Amherst InsightLabs estimates based on Corelogic County Record and Transaction Data as of Q4 2016

INSTITUTIONAL STRATEGY—SPLIT ACROSS GROWTH VS. VALUE

There are several ways to segment institutions' purchases. One way which gives insights into their behavior is to segment along the growth vs. value spectrum in terms of their geographical focus. Exhibit 8 scatter-plots various metros in the U.S. along the dimension of job growth (vertical-axis, 5-year annualized growth in non-farm payrolls) and population growth (horizontal axis, 2010–2016 compound annual growth rate/CAGR). Thus the top right corner in the chart represents metros that had higher growth in jobs and population over recent years.

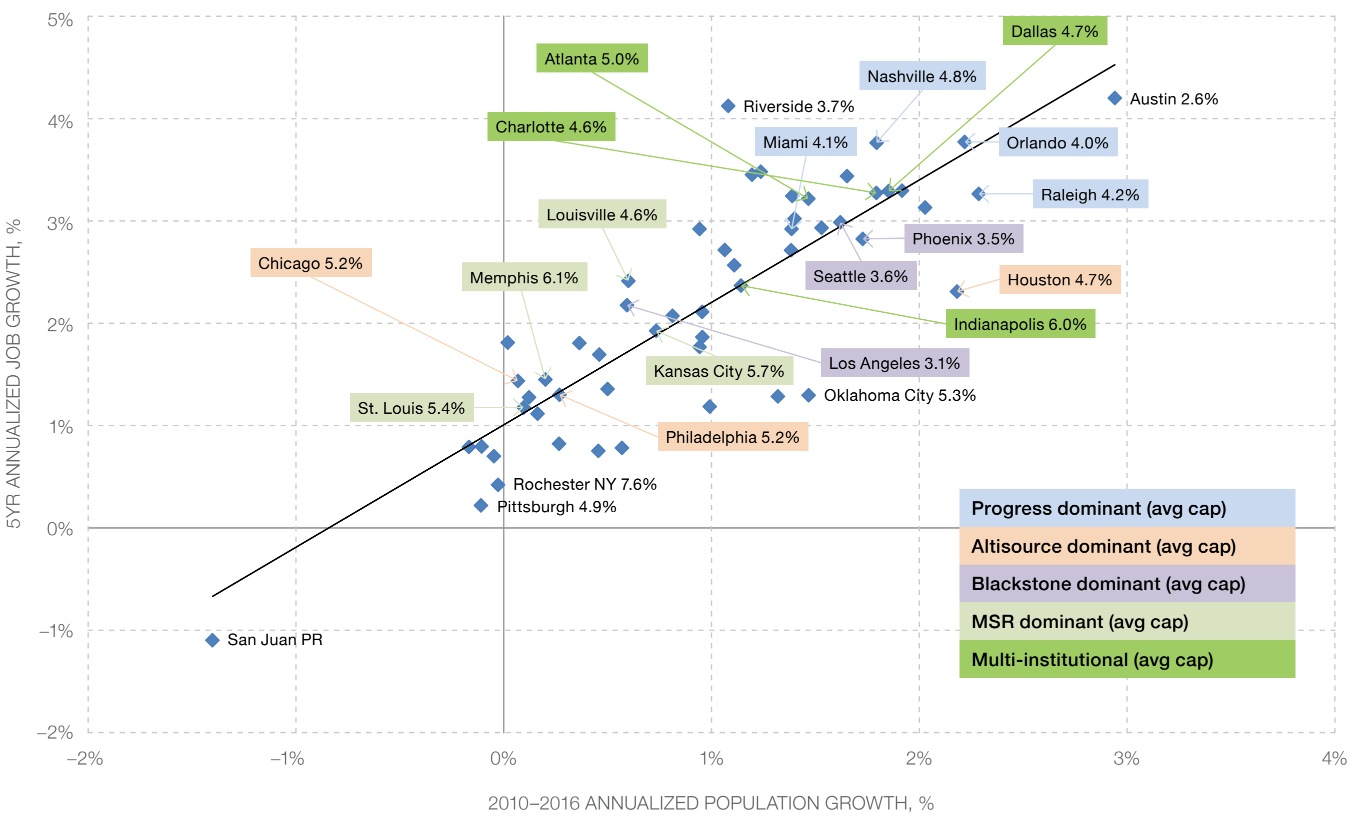
The labels are color coded to highlight where either multiple institutions are active (green color), or where a single institutional buyer has been dominant among institutions. For instance, Atlanta is highlighted as a multi-institutional area, and the average cap rate based on our estimates for 2016 Atlanta purchases was about 5.0% metro-wide, based on our estimates.

Based on this exhibit, a pattern emerges where larger public REIT buyers seem focused on higher growth areas. For example, as mentioned in the previous section, Progress is the dominant buyer in Nashville, Orlando, Miami and Raleigh, all of which are closer to the top right end of the scale (cap rates in the 4–4.8% range). These areas have higher-than-average job and population growth versus the rest of the U.S.

In contrast, there are value buyers like MSR and Altisource. MSR is dominant in St. Louis, Kansas City, Memphis and Louisville. These are areas with more moderate job and population growth, closer to the U.S. average. But average cap rates in these areas are generally higher, at around 5–6% (the exception in our data was Louisville, at 4.6%).

To put it into perspective—the difference in average cap rate of 4.5% vs. 5.5% means that very roughly, the value buyers are buying these cash flows at a 20% discount, but may have to settle for lower growth in rents and home prices if future growth remains in line with that of the last five years. However, we would argue that these areas also have a larger cushion against rising interest rates and a potential slowdown in the higher beta sectors of the economy. We continue to believe these middle-market regions are the sweet spot, with higher cap rates and still reasonable levels of growth and potentially lower credit risks.

EXHIBIT 8 ***Split in buyers—growth vs. value***



Source: Amherst Capital analysis on Amherst InsightLabs estimates based on Corelogic County Record and Transaction Data as of Q4 2016 extracted in April 2017. Population growth data based on U.S. Census Bureau, Population Division's Annual Estimates of Resident Population: April 2010 to July 2016, Data released March 2017. Job growth data based on U.S. Bureau of Labor Statistics Non-Farm Payrolls data as of March 2017 extracted in May 2017

SECTION II

UPDATE TO FINANCIAL MARKETS LANDSCAPE FOR SFR

Having looked at institutional SFR activity in the first section, we now turn our attention to financial markets and what they tell us about SFR activity. There is lot more publicly available information today than in the past on how the market values big portfolios of homes. So we can utilize information from the financial statements of publicly traded REITs to compute an implied real estate cap rate.

We start by computing real estate value for each of these REITs using market prices adjusted for cash and other assets. Very simply, we calculate:

Real estate value of their holdings = (Value of Equity + Debt + Preferred + Minority or Non-controlling interests) – (Cash + other non-real-estate assets)

Next, we look at latest quarter reported NOI and adjust for any recent acquisitions (such as Colony Starwood's acquisition of 3,100+ homes from GI partners). Please note that NOI is a non-GAAP measure, but the definition is relatively standard. In any case, slightly different definitions should not alter our conclusion on the general range of where cap rates are for big portfolios.

VALUATIONS REMAIN RELATIVELY ATTRACTIVE WITH POTENTIAL FOR MORE THAN 8% UNLEVERED RETURNS ON THE ASSET

Exhibit 9 shows the results of this computation using First-quarter 2017 annualized NOI divided by our estimated real estate value. We find that within public REIT space, backward looking cap rates (based on prior quarter NOI) are still at the reasonably attractive level of 5.0–5.3%. In fact, using forward looking estimated NOI metrics, the prospective cap rates (which are a measure of the unlevered cash-on-cash returns on the asset) are closer to 5.3–5.6%.

Add to this estimated home price appreciation of even 2–3% per year, and the unlevered yield on the SFR assets appears to be about 8% or higher, for public REITS, which admittedly trade somewhat tighter than private funds. Please note that these numbers are representative of potential returns on stabilized assets. Arguably, a higher proportion of non-stabilized homes properties can boost returns. But long story short, valuations in the space still seem attractive, with 8% unlevered yields on these assets possible without assuming very high HPA[13]/ rent growth.

EXHIBIT 9 ***Public REIT cap rate comparison (based on recent SEC filings)***

	Invitation Homes INVH	American Homes 4 Rent AMH	Colony Starwood SFR	Silver Bay (at Acquisition Price) SBY
Share price as of Jul 7 2017	21.4	23.05	35.13	21.5
Current Number of Shares Out	310,376,634	319,811,848	124,843,799	37,745,743
+ Market Value of Equity ($M)	6,642	7,372	4,386	812
+ Total Debt ($M)	5,930	3,219	4,001	638
+ Preferred & Other ($M)	0	767	0	1
+ Minority Interest ($M)	0	0	206	32
– Cash and investments ($M)	192	496	431	52
Enterprise Value ($M)	**12,380**	**10,862**	**8,162**	**1,475**
– Other Assets ($M)	**325**	**332**	**247**	**30**
Real Estate Value ($M)	**12,055**	**10,529**	**7,915**	**1,445**
NOI Q1 2017 Annualized ($M)	**602.3**	**526.9**	**417.8**	**76.8**
Implied Cap rate	**5.0%**	**5.0%**	**5.3%**	**5.3%**

Source: Amherst Capital estimates based on company Q1 2017 10-Qs and other subsequent 8-K reports extracted from Bloomberg. As of July 2017

Note : Except for Silver Bay, which is shown at its acquisition price from the Tricon deal, the EVs are calculated based on July 27 share price. For Colony Starwood, we use pro forma NOI including the NOI on the GI Partners portfolio acquisition as reported in the June secondary issuance prospectus. Shares outstanding for SFR are also updated to reflect this June issuance of about 20M shares. For AMH since 2017 Q1 there have been two preferred issuances, which are reflected in the numbers above. Shares outstanding for AMH are grossed up for Class A Units in the operating partnership that are exchangeable for Class A shares, RSUs and shares issuable upon certain options granted as part of incentive compensation. The minority/non-controlling interest reported in the 10-Q refers to these Class A units and hence was excluded to avoid double-counting.

13 Home Price Appreciation ("HPA")

FINANCING OPTIONS AND LEVELS HAVE IMPROVED

Not only do we find that the asset remains priced at attractive valuations, but there are more avenues to finance them now—and at spreads meaningfully lower than a few calendar quarters ago.

1. We witnessed the first of its kind GSE-backed loan to a portfolio of SFR properties earlier this year backed by Fannie Mae[14]—the Fannie Mae backed loan was subsequently securitized. While it is not yet a well-established program, any analysis on SFR securitizations/financing markets going forward cannot ignore the possibility of a GSE-guaranteed SFR securitization market.
2. Spreads on new private label SFR securitizations and secondary spreads on older deals continued to tighten. The tighter financing spreads on recently securitized SFR deals are, in our view, a reflection of two things. First, the overall securitized credit market has seen credit spreads tighten in over the past year and this benefit has accrued to SFR securitizations as well. Second, as we detailed in section 3.4 of our November 2016 white paper*, SFR inherently has lower volatility of cashflows and prices compared to other CRE sectors; we believe this realization is slowly making its way through markets and is being reflected in spreads and ratings to some extent.

We next examine both the GSE loan program/securitization and pricing information available from the securitization markets. Our starting point is the structure for the pilot GSE deal in this space, and we make the case for why GSE-backed SFR securitizations make sense.

14 Source: http://www.urban.org/sites/default/files/publication/88036/fannie-maes-financing-of-single-family-rentals.pdf

* To download, please visit: https://www.amherstcapital.com/market-insights

AGENCY-GUARANTEED SFR SECURITIZATION— A ONE-OFF TRIAL, OR THE WAY FORWARD?

The biggest new development in SFR financing earlier this year was the issuance of the first GSE-guaranteed securitization (FNGT 2017-T1). The GSE-guaranteed securitization was announced as a pilot transaction, along with the Invitation Homes IPO in January 2017. However, it subsequently drew opposition from the National Association of Realtors and some consumer advocates, mainly around why GSEs need to be financing the institutional SFR business. The transaction finally priced in April 2017. It remains unclear if this will be a one-off pilot transaction or a path forward for financing SFR portfolios.

That said, there was additional news in July 2017; Freddie Mac may follow with a trial guaranteed SFR transaction of their own. Responding to criticism of the Fannie Mae deal, the Freddie deal may have some additional focus on affordability, so we might see a deal with a smaller sponsor, in the mid to lower end of the spectrum of strategies described earlier.

TRANSACTION DETAILS[15] —FANNIE MAE SFR SECURITIZATION (FNGT 2017-T1)

Wells Fargo originated the approximately $1B whole loan that backed FNGT 2017-T1, the GSE-guaranteed securitization transaction. The loan LTV to broker price opinion ("BPO") was 60%, with an underwritten ("U/W"), interest-only ("IO") net cash flow ("NCF") debt-service coverage ratio ("DSCR") of 1.93x and a debt yield of 8.16%, was more conservative than typical SFR securitizations thus far (Exhibit 10). In addition, affiliates of the Invitation Homes borrowing entity held the bottom 5.5% slice of the loan, to satisfy risk-retention requirements. As a result, the effective LTV of the Fannie Mae-guaranteed portion was just 56.7%, and the debt yield to the guaranteed piece was 8.6%. The implied cap rate at BPO was 4.896%. Average loan amount/property was $139K, and average BPO was $231K. Total cost basis averaged $184K/home, including average upfront renovation costs of $20K.

The coupon on the loan was 4.2285%, which equaled about 10-year swap rate ("S") +200 basis points ("bps") at the point of securitization. The loan term was 121 months, and interest-only loan for the entire term. Yield maintenance is due on the loan until month 117 after origination. The guaranteed portion was priced at S+73 bps. Fannie Mae was paid a guarantee fee of 127bps; some of that was passed along to Wells Fargo as loan originator and potentially also covered compensation for structuring the securitization.

FANNIE DEAL PROVIDES SOME ADDITIONAL FLEXIBILITY VS. PRIVATE SECURITIZATIONS[14]

The Fannie Mae deal does provide some additional flexibility to Invitation Homes with broader substitution rights for the collateral and the ability to reduce the number of homes in the pool if cash flows and asset values rise over time. This effectively allows a built-in cash-out option within the securitization. Most private securitizations only allow substitutions on properties that become "disqualified", but the FNGT deal allows Invitation Homes to also elect to substitute certain properties or portfolios of properties.

More importantly, the deal also allows for "Special Releases" of properties between year one and year five after closing. These special releases are allowed on a maximum of two occasions and for up to 15% of the outstanding loan amount at that date, without any prepayment on the loan. This could be done (with consent of the lender, of course) if certain conditions are satisfied (loan LTV post-transfer is less than closing date LTV). The allocated loan amount would then be readjusted for the remaining properties based on the then-current BPOs.

15 Source: Fannie Mae deal documents and announcements

THE BROADER CASE FOR GSEs' PRESENCE IN THE MARKET

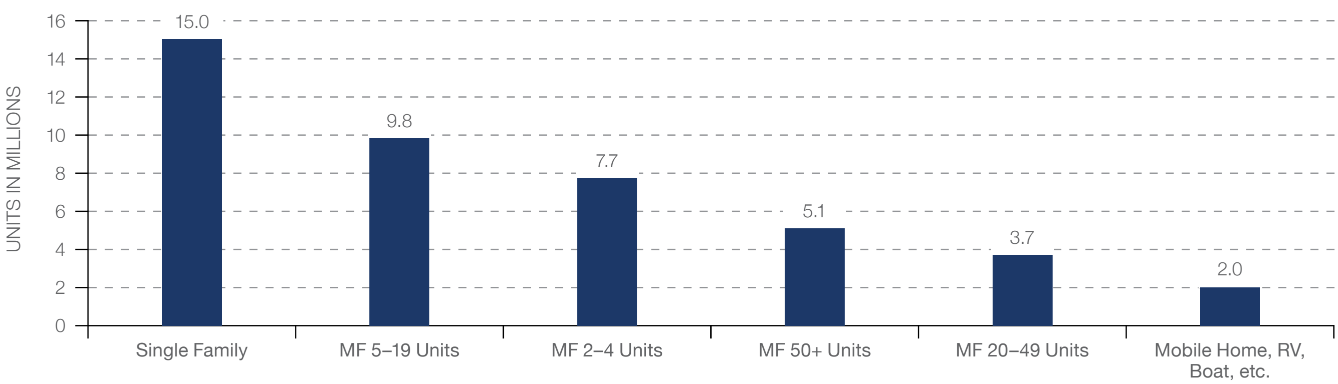
We first made the case for a GSE-backed financing market for SFR in Section 5.6 of our November 2016 white paper*. Fannie Mae and Freddie Mac dominate the financing markets for both single family homes and multifamily rentals. While institutional SFR is a recent development, we estimate that there are more than 15M single family rental households in the U.S. That number exceeds all other types of structures individually when it comes to rental housing in the U.S. (see Exhibit 10).

To provide more context, GSE-backed financing is available for most 5+ rental buildings, which are generally institutionally owned. In fact, according to data from the Urban Institute,[16] GSE financing was used to finance over a third of all multifamily originations in 2015. In comparison, pools of single family rental homes do not have a specific GSE program that addresses the financing needs of institutions. Fannie Mae and Freddie Mac are willing to finance up to 10 homes, for a single small investor borrower, but that program does not scale well to institutional investment size.[17] Essentially, there is no comparable program to the GSE multifamily program that has been used by institutional owners for loans as large as the $2.7B Fannie Mae-guaranteed financing of the 110-building Stuyvesant Town-Peter Cooper Village in Manhattan.

This is despite the fact that, as we demonstrated in our November 2016 white paper*, we believe portfolio volatility for the value of these single family rental pools is likely to be lower than that for multifamily. This should mean that all else being equal, risk for the GSEs (and consequently the taxpayer) in guaranteeing these pools of SFR should be lower than on guaranteeing multifamily properties that are currently part of the GSEs' mandate.

Ultimately, institutional single family rental housing fills a void in credit availability in the aftermath of the Great Financial Crisis. A GSE program on the lines of what GSEs currently have in multifamily, with similar focus/incentives on affordability, could help in making rental housing more affordable and improve the availability of quality single family rental homes.

EXHIBIT 10 ***Estimated rental units—by type of structure***



Source: Amherst Capital estimates based on U.S. Census Bureau surveys. Based on American Housing Survey 2015—data as of June 2017

Above: Multifamily ("MF")

16 http://www.urban.org/sites/default/files/publication/88036/fannie-maes-financing-of-single-family-rentals.pdf

17 https://www.fanniemae.com/content/guide/selling/b2/2/03.html

* To download, please visit: https://www.amherstcapital.com/market-insights

RECENT 2017 PRIVATE DEAL PRICING INDICATES SPREADS ARE 50–100BPS TIGHTER THAN DEALS FROM 2016

Away from the GSE deal, we continued to have more securitizations in the private label space, albeit at a slower rate in first-half 2017 versus 2016 which was quite busy. In 2016, eight single-borrower and three multi-borrower deals resulted in total issuance of about $5B. As Exhibit 11 shows, the average cutoff date LTV was just below 80%, though some of the bottom classes may have been retained by a borrower-affiliate, which in some cases could lower the true LTV of the loans. On average, the balance per property was about $155K, with average appraisal at about $206K and average monthly rent just above $1,500 (per our summary of data compiled by Morgan Stanley Research, Exhibit 11).

The latest securitization that priced in July 2017 (PROG 2017-SFR1) was heavily oversubscribed; it priced significantly tighter than prior SFR deals. As Exhibit 12 shows, the all-in financing cost at a 72% LTV was S+137bps (tranche G was retained by an affiliate of the borrower, so the effective LTV of the loan was 72%). However, this estimate of financing cost does not include the deal/structuring/rating fees which probably add another 2–3 points or roughly 50bps to the borrower's total loan costs. So the true all-in cost of financing for the 5-year loan was probably at or around S+187 bps at a 72% LTV leverage point.

To compare to the FNGT transaction, which had an effective leverage point of 56.7% LTV, if we only look at pricing down to the D class of the PROG 2017-SFR1 deal which was about 56% LTV, the securitized financing spread was S+96bps which implies an all-in cost of financing of S+145-150 vs. the S+200 paid by Invitation Homes on the FNGT transaction. The PROG 2017-SFR1 has a shorter tenor of five years, versus 10 years for the FNGT transaction, which could explain some of the difference. However, secondary market SFR spreads lead us to believe that even adjusting for the difference in tenor, PROG 2017-SFR1 was in effect tighter all-in financing than FNGT. It's also possible that Invitation Homes paid some additional spread for the additional flexibility in the loan substitution/release provisions we described earlier in the article.

EXHIBIT 11 ***Summary—SFR private label securitizations***

	Single-Borrower (2016 Vintage)	All Single-Borrower
Number of Deals	8	31
Number of Sponsors	5	11
Number of Properties – total	28,227	119,658
Cutoff Date LTV Ratio	79.9%	75.3%
Purchase Price LTV Ratio	101.8%	101.2%
Cutoff Date Balance (Per Property)	155,116	146,429
Average Appraisal	206,208	197,978
Monthly Rent	1,518	1,435

Source: Morgan Stanley Research, Bloomberg as of 2016 Q4

EXHIBIT 12 ***PROG 2017-SFR1—Implied financing Costs (net of deal structuring costs)***

Tranche	Size ($M)	Sold?	Rating	Pricing Spread (bp)	Cumulative Financing Spread (bp)	LTV
A	228.7	Y	AAA	80	80	38.8%
B	38.4	Y	AA–	105	84	45.3%
C	31.0	Y	A–	135	89	50.5%
D	31.0	Y	BBB+	160	96	55.8%
E	53.1	Y	BBB–	230	114	64.8%
F	42.8	Y	BB–	340	137	72.0%
G	33.7	Retained				77.7%

Source: Amherst Capital estimates based on Bloomberg, deal offering documents, such as Term Sheet, Annex A, etc.

SFR SECURITIZED FINANCING IS NOW MORE IN LINE WITH MULTIFAMILY SECURITIZED FINANCING

Away from the new securitizations, we also have secondary market spreads for older deals in the SFR market. Exhibit 13 compares SFR securitizations versus multifamily deals, and the implied financing spreads and LTV levels currently achievable. The first point to note is that SFR financing spreads have compressed significantly. The PROG 2016-SFR2 deal priced in late 2016 implied an all-in financing spread of 269bps. The Fannie Mae-backed securitization for Invitation Homes priced at an implied spread of 200bps (assuming the amounts paid to Wells by Fannie Mae include all structuring and other fees), and the latest PROG 2017-SFR1 deal implied a spread of about 187 bps (assuming for the two PROG deals about 50bp per annum in deal structuring/rating costs and fees or roughly 2–3 points).

Second, Exhibit 13 also shows comparable metrics for two multifamily deals. The IMTT 2017-APTS is a single-borrower multifamily portfolio with some geographical diversification. The Agency CMBS K64 deal is a multi-borrower Freddie Mae guaranteed agency conduit-style deal. The LTV for the multifamily deals was about 67–69%, which was slightly lower than the latest PROG deals sold LTV of 72%. Implied financing rate for both the multifamily deals was about S+200bps, which is slightly wider to the PROG 2017-SFR1 deal and similar to the agency-backed FNGT 2017-T1 SFR deal.

Finally, the bottom half of Exhibit 13 shows the LTVs and spreads at the AAA rating level and at the lowest IG-rated BBB– point. The AAA LTVs for the SFR deals (~38%) are significantly lower than the inherent AAA rating on the K64 deal which is at a 58.4% LTV. The AAA LTV for the single-borrower multifamily is even lower, however, at only 29%. At the BBB– level, the LTV for SFR deals is about 64–65%, which is comparable to the Freddie K deal at 64%. The BBB– LTV for the single-borrower apartment deal is lower, at 51%.

EXHIBIT 13 ***SFR securitized financing spreads have compressed, comparable with multifamily***

	SFR Securitizations			Multifamily	
	PROG 16-SFR2 Q4 2016	Agency SFR (FGNT 17-T1) Q2 17	PROG 17-SFR1 Q3 17	Portfolio SASB (IMTT 17-APTS) Q2 17	Agency CMBS (K64)
DSCR	2.18	1.93	1.50	2.32	1.42
LTV (sold piece)	75%	57%	72%	67%	69%
Debt Yield (sold piece)	6.3%	8.6%	6.7%	7.2%	8.3%
Cumulative Financing spread	L+219	S+200	S+137	S+152	
Estimated All in Spread (bp)	269	200	187	200	200
LTV by rating level					
AAA	38.5%	56.7%	38.8%	29.3%	58.4%
BBB–	63.5%		64.8%	51.2%	64.2%
Pricing Spread					
AAA	140	75	80	93	73
BBB–	355		230	190	300

Source: Amherst Capital estimates based on Bloomberg, deal offering documents, such as Term Sheet, Annex A, etc.

Note: Red highlighting represents wider spreads green is tighter spreads, similarly red is higher LYV green is lower LTV.

RATING AGENCY MODELS IMPLY LOWER/SIMILAR VOLATILITY BUT PENALIZE AAA DUE TO HIGHER CORRELATION FROM SINGLE-BORROWER

From this we can make two observations:

1. SFR being a single-borrower transaction has lower AAA LTVs in general for the same BBB– LTV versus the multi-borrower Freddie K apartment deal. This suggests that the correlation benefit for the multi-borrower deal is substantial and the multi-borrower nature reduces the effective correlation of outcomes in rating agency models.
2. However comparing the BBB– LTVs between the single-borrower SFR and single-borrower apartment deals reveal that rating agency models allow higher LTVs for SFR, by about 13 points (51% vs. 64%). This implies that the effective loss distribution for the SFR deal should have lower volatility than for the multifamily ("MF") deal. This is in line with what we have argued in the past in Section 3.4 of our November 2016 white paper*.

DIVERSIFICATION/CORRELATION BENEFIT STEMS FROM DIVERSIFIED ROSTER OF TENANTS; SFR SHOULD GET MORE CREDIT

While some of this lower volatility seems to be flowing through in rating agency models, we would argue that the diversification benefit of a 2000–4000 property portfolio of SFR is underestimated there. The portfolio benefit of holding a diversified portfolio of a few thousand homes should likely be more comparable to the Freddie K deal which is backed by about 70–100 loans and a few thousand housing units. This is because the source of the diversification benefit is from dependence on a diversified roster of tenants/geographies, and as such, the benefit should be proportionate to the number of individual dwellings/households rather than whether it is a single-borrower or multi-borrower deal.

* To download, please visit: https://www.amherstcapital.com/market-insights

CONCLUSION

ATTRACTIVE VALUATIONS, TIGHT FINANCING BODE WELL FOR HIGHER INSTITUTIONAL SHARE OF SFR

Overall, housing activity has been relatively positive the past 6–12 months. Exhibit 14 shows a high level summary of trends in the market. It shows rising home prices and rents, and growth in new and existing home sales. Moreover, despite modestly strong numbers, the single family residential market trailed price gains in some other CRE markets, particularly in the apartment sector. For example, over the past three and five years (ending 2016), single family home prices grew 15% and 34%, respectively. In comparison, apartment prices (Apt CPPI in Exhibit 14) grew at 45% and 91%, respectively (through first-quarter 2017), for that same period. In our view, tight mortgage credit has depressed single family price growth relative to some other asset classes (such as multifamily, or other CRE).

Overall, we believe that the demand for single family rental homes will remain strong due to a combination of demographic, financial and preference-related reasons. In the institutional SFR space, we find that valuations remain relatively attractive. As we showed in Exhibit 9, public REITs are pricing at or above a 5% implied cap rate, and other institutions are likely acquiring assets at even higher cap rates (Exhibits 4 and 5).

At the same time, financing costs have come down, as demonstrated by the PROG 2017-SFR1 deal. If the GSEs enter the financing market for good, that could provide a new and relatively stable source of financing for the space. On balance, we believe this setup of relatively attractive cap rates, modestly strong home price appreciation, and cheap financing spreads should argue for strong equity returns in the institutional SFR space.

We continue to expect that the institutional share in single family rentals will grow over the coming years—with greater acceptance and appreciation of SFR as an institutionally managed CRE.

EXHIBIT 14 ***Overview—U.S. housing data***

	Data	Latest	–6M (%)	–12M (%)	–3y (%)	–5y (%)
Home Sales	New Home Sales (000s, annual rate, 3M rolling Avg)	616	7%	11%	46%	71%
	Existing Home Sales (000s, annual rate, 3M rolling Avg)	5,627	2%	3%	17%	23%
	Pending Home Sales (Index, 3M rolling Avg)	110	0%	–2%	11%	12%
Price and Rents	Amherst HPI	200	2%	5%	15%	34%
	SFR Rents (estimated)	1,481				
	Apt Rent	1,314	1%	3%	14%	23%
	Apt CPPI	276	2%	8%	45%	91%
	APT Cap Rates (3M rolling Avg)	5.3	–2%	–6%	–11%	–15%
Construction	1-unit starts (3M rolling Avg)	815	–1%	9%	26%	64%
	2–4 Unit starts (3M rolling Avg)	13	44%	39%	22%	15%
	5+ Unit starts (3M rolling Avg)	318	–8%	–16%	–7%	52%
Size of the Market	Households	118,800,000		1%	3%	3%
	Rental Households	43,244,000		–1%	2%	6%
	SFR Households	15,018,725		–1%	6%	9%
	Institutional SFR properties	200,709		10%	85%	11075%

Source: Bloomberg, as of Q2 2017, Census Bureau as of Q1 2017 for Households data, SFR data based on Amherst InsightLabs estimates based on Corelogic County Record and Transaction Data as of Q4 2016

ABOUT AMHERST CAPITAL MANAGEMENT

Amherst Capital Management LLC is a real estate investment specialist with approximately $6.3 billion[1] of assets under management. Amherst Capital was established in 2014 as a majority-owned subsidiary of BNY Mellon, and is minority-owned by Amherst Holdings, LLC a financial services holding company with more than 10 year history of utilizing its mortgage expertise to assist clients in navigating the real estate capital markets. Amherst Holdings is not an affiliate of BNY Mellon. Texas Treasury Safekeeping Trust Company is a founding seed investor of Amherst Capital. [2] Amherst Capital offers traditional and alternative real estate investment strategies to private and institutional investors globally. Amherst Capital's investment strategies are grounded in deep intellectual capital and proprietary technology designed to help clients meet their portfolio needs. For more information please visit www.amherstcapital.com.

ABOUT AMHERST HPI MODEL

Amherst home price index is generated and maintained by Amherst Insightlasbs LLC. The index tracks price changes of single-family detached properties in 90 core-based statistical areas (CBSA) and 50 states in the US. The index is published monthly and is based on the Case Shiller repeated sales methodology. Unlike HPI published by S&P Case Shiller Weiss, Corelogic and Federal Housing Finance Agency (FHFA), Amherst HPI is a distressed-free index which does not include price changes due to foreclosures, short-sales, bank repossession and REO resale. The repeated sales HPI rely on tracking price changes in transactions of the same house over time. For each arms-length and distressed-free home sale transaction, a search is conducted to find information regarding previous arms-length and distressed-free sales of the same house. If an earlier transaction is found, the two transactions are paired into a "sale pair." Sale pairs are designed to track price changes over time for the same house, while holding the quality and size of each house constant. After sales pairs are formed, the index is calculated under a weighted least square framework, in which weights are based on price anomalies and time interval within pairs.

IMPORTANT DISCLOSURES

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1 As of March 31, 2017. This amount includes $4.7 billion assets pertaining to certain discretionary multi -sector fixed income clients of our affiliate Standish Mellon Asset Management Company, LLC ("Standish"), for which certain Amherst Capital employees provide advice acting as dual officers of Standish. In addition, discretionary portfolios with approximately $409 million are managed by certain of our employees in their capacity as dual officers of The Dreyfus Corporation. AUM includes gross assets managed in the single family equity and commercial real estate strategies, which include $243 million of leverage and $7 million of leverage, respectively.

LIMITATIONS OF PROJECTED RETURNS

Projected returns are hypothetical in nature and are shown for illustrative, informational purposes only. This material is not intended to forecast or predict future events, but rather to demonstrate how the economics of single family rentals may affect the performance of a portfolio of SFE assets. Specifically, the projected returns are based upon a variety of estimates and assumptions by Amherst Capital of future SFR returns including, among others, assumptions of vacancy, capital expenditures, portfolio level expenses such as taxes, insurance, HOA and repairs and maintenance, and expense and rent growth. The returns and assumptions are inherently uncertain and are subject to numerous business, industry, market, regulatory, competitive and financial risks that are outside of Amherst Capital's control. Certain of the assumptions have been made for modeling purposes and are unlikely to be realized. No representation or warranty is made as to the reasonableness of the assumptions made or that all assumptions used in achieving the returns have been stated or fully considered. Actual operating results, asset values, timing and manner of dispositions or other realization events and resolution of other factors taken into consideration may differ materially from the assumptions upon which estimates are based. Changes in the assumptions may have a material impact on the projected returns presented. The projected returns do not reflect the actual returns of any portfolio strategy and do not guarantee future results. Actual results experienced by clients may vary significantly from the hypothetical illustrations shown.

For more information, please contact:

Sandeep Bordia
Head of Research and Analytics, Amherst Capital Management
212.303.1594 / sbordia@amherstcapital.com

Jasraj Vaidya
Senior Research Analyst, Amherst Capital Management
212.303.1588 I jvaidya@amherstcapital.com

Contributor:

James Mills
Senior Data Analyst, Amherst InsightLabs
512.342.3036 / jmills@amherst.com

444 Madison Avenue
19th Floor
New York, NY 10022
www.amherstcapital.com

Amherst
CAPITAL MANAGEMENT
A BNY MELLON COMPANY

Media Contact:

Jessica Rutledge
AVP, Marketing & Communications
212.303.1595 | jrutledge@amherstcapital.com